

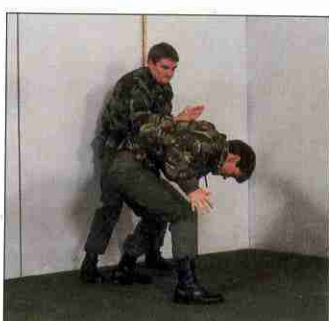
Straight arm choke and strangle from the rear



1 You are pinned to a wall by an attacker who is using a straight arm choke against you.



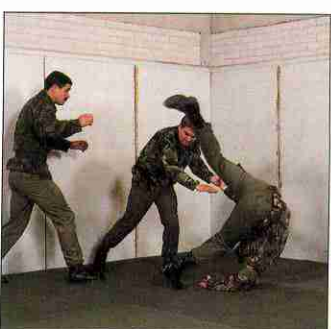
2 Bring your right hand over to grasp the attacker's right hand.



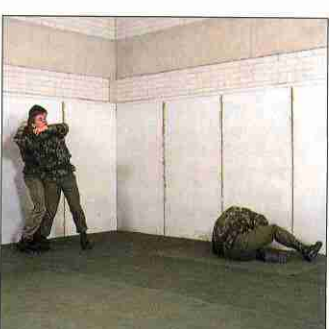
3 Rotate his arm to apply a wristlock, as shown in issue 9.



4 As in the previous move, you must finish off the first attacker when a second enemy appears on the scene.



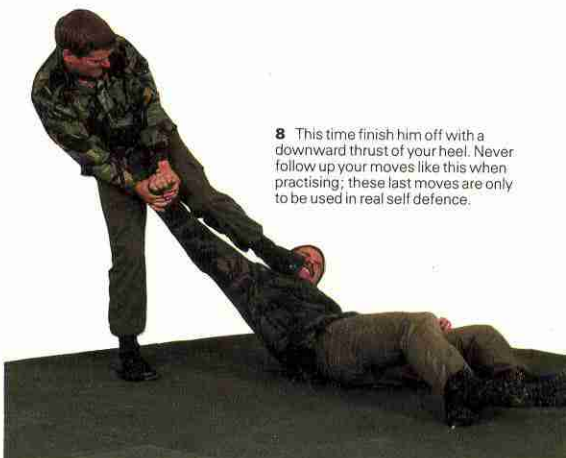
5 A boot in the face and a savage twist of the arm finishes off attacker no. 1, but attacker no. 2 closes in.



6 Attacker no. 2 attacks you from behind and attempts to strangle you. You grab his neck with your right hand.



7 Throw him to the ground using a shoulder throw: get your hips under his centre of gravity and thrust upwards to topple the attacker over.



8 This time finish him off with a downward thrust of your heel. Never follow up your moves like this when practising; these last moves are only to be used in real self defence.

Setting a Snare

A snare has two essential parts – the wire noose and the stick to anchor it into the ground. This is how to put it to use.



1. The snare itself is just a running noose of wire with a tail of strong string.



2. A branch of a Christmas tree is ideal for the peg of a snare. Trim off both ends.



4. Pass the tail through the slot, make two turns around the stalk and tie it off.



5. Anchor the stick into the ground so that the snare is a hand's breadth above the ground.



3. Cut a slit in one end to take the string tail.



6. Set your snare along tracks and paths used by animals. This track has been beaten down by rabbits and is an ideal spot.

nent homes. Look for their signs – tracks, paths in grass, faeces, dens, feeding places – and use that intelligence to help you set up a plan to catch them.

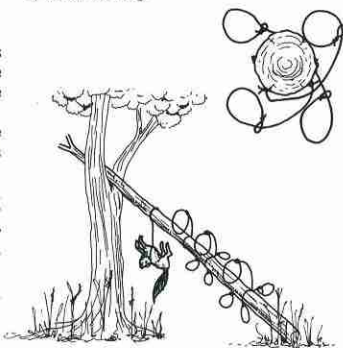
Camouflage and approach

Remember, the fieldcraft that makes you a good foot-soldier can also make you a good hunter. Always obey the rules of camouflage and approach. Never silhouette yourself against the skyline, even in woodland. Always move upwind or across wind. Approach streams, rivers and waterholes very carefully, especially around dawn and dusk. Find cover and get into it, and wait for the animals.

And stay still! Fidgeting may cost you a meal – and that may end up costing you your life.

A pole to catch squirrels

Take a pole, fix some wire snares to it and lean it up against a tree where you've seen squirrels. It may seem too simple to be true, but these inquisitive creatures are quite likely to get caught up before too long.



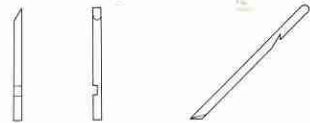
Siting traps

You can't just put a trap anywhere and expect it to work. Careful siting is the most important part of trapping. The mouths of burrows are good places, but you must be sure to disguise or obliterate your scent.



Deadfalls

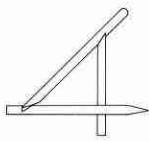
The figure-four deadfall is simple to make and surprisingly sensitive. The props should be as thin as you can make them, the fall itself as heavy as possible. The one shown here is relatively small, but you can make larger ones too, to stun larger animals.



Cut two sticks of roughly equal length, and trim and notch them as shown. Sharpen one end of each stick, one to go into the ground and the other to take the bait.

Cut and notch a third, longer stick to form the third side of the triangle.

Pay careful attention to the notches. Cut them too shallow and they won't hold for very long.



You may find it frustrating, trying to set the trap up. But remember, the harder it is to get it to stay together, the more sensitive it will be in use.



snare, which may stand up on its own, you will have to make a stand to hold the noose open. Two twigs, one each side of the mouth of the burrow or the path will do, with another one perhaps placed across the top to support the trap.

Human scent

Don't forget to cover your scent, both on the snare itself and on the surrounding ground: soaking the snare in a stream after you've made it and before setting it is one way. Or you can rub it with cold ashes, or disguise your own scent with something stronger – urine from the bladder of a dead animal, for example. Animals are usually attracted to urine from their own kind.

Improved noose

You can improve on the simple noose, and make it more difficult for the animal to escape from the trap, by inter-twining two lengths of wire. Use the two strands that are left at the end to make up a double running loop. These two loops will naturally catch in the twists of the wire that makes the body of the line and noose, and will make it much more difficult for the animal to wriggle out of the noose.

You can always let predators do your hunting for you. Watch until you can work out their pattern of activity, then wait for them to make a kill. If you rush them you'll often cause them to drop their prey.

Larger game, even if it sees you, may not take flight straight away. Stop and keep still until it loses interest, and then approach in a wide zig-zag. In hills and mountains, always try to get above the animal you're stalking.

Best target areas

If you are shooting game, the best targets are the head, neck and the spine just behind the shoulder. Take your time, and make the first shot count – because you're not likely to get a second chance. If you hit and wound the animal and it runs off, follow the blood trail. A badly wounded creature won't have the strength to run far. Give it the chance to go to ground before following it up. Approach slowly and then make the kill. Don't waste ammunition if you can finish it off by clubbing it.

Hunting, however, should take second place to making and setting traps. Traps are much more likely to provide you with a lasting supply of meat. Simple ones are very easy to make and set: the simplest of all is a snare – a slip noose firmly pegged into the ground or anchored to a rock or tree. Make them from wire if it's available, or use plastic fishing line, string or even line made up from natural fibres.

These snares are especially effective when you set them at the entrance to burrows and dens. Set them in trees to catch squirrels, or make a 'squirrel pole': an eight- to 12-ft pole with perhaps half-a-dozen snares around it, leaned up against a tree used by squirrels. It may sound too easy, but squirrels are inquisitive creatures and will often investigate something new just for the fun of it.

You're not likely to be able to kill

anything larger than a rabbit or a small cat with a wire snare, though you may slow down larger animals so that you have a better chance of clubbing them to death.

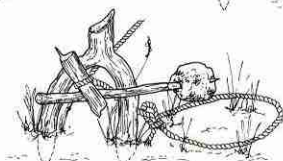
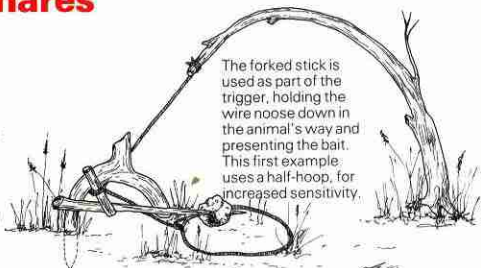
Looking for signs

Trapping, even more than hunting, depends on how well you can read the signs. There is no point in placing a trap just anywhere hoping that an animal will stumble into it by chance! Entrances to burrows and tunnels are the best place. Look for signs that they are occupied – fresh droppings, signs of feeding and movement in and out.

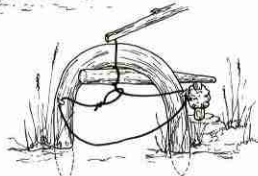
Unless you're using wire for the

Hanging snares

Hanging snares are a more secure way of holding on to the animal that you've caught. They use the creature's own weight to keep it from wriggling out of the noose. Apart from the wire noose itself, to make a hanging snare you need a sapling close to the run you've chosen, and a forked stick, or one bent over into a hoop.



Where you use a forked stick with both of its tines buried, you must remember not to pass the tail of the snare through the hoop. The toggle that holds the baited trigger is caught in a loop of the tail, not knotted.



As an alternative you can drape the loop of the snare right around the hoop. This gets the noose off the ground without needing extra sticks.

Survival

Fishing for Food

Fish can see what is on the river bank, although it is a very distorted image. Sudden movement will alert any potential prey, so the key is selecting the right site to spear from and then having the patience not to move until the moment of strike.



The fishing spear has a detachable head secured with twine to the shaft of the spear. The violent movement of the fish is not transferred to the spear shaft, so you can maintain a firm grip of the prey without it wriggling off the spear point.

At a casual glance you might mistake the motionless form on the riverbank for that of someone basking in the sunshine. But the survivor is hard at work, his intent gaze piercing the water surface, searching for the sleek silver shimmer of his next meal.

If you are fortunate enough to be stranded in an area with a lake or river, you have a rich source of food waiting to be gathered. Fish are rich in protein, the brains and skin are rich in fat, and the meat can also be stored long term. The problem is how to remove the fish from his natural environment to yours.

As someone intent purely on survival, you cannot afford any sporting niceties. The fishing techniques you will need to use are usually outlawed. You must be able to catch your fish in quantity, and as easily as possible. Before you actually start fishing remind yourself of the danger of water, especially in your weakened physical state. Should you fall in, remember the tip of the old salmon fishermen –

throw your arms out, crucifix-fashion, and try to float down to a shallow pool where you can wade out. If you panic and throw your arms up in the air you will only sink faster. (In crocodile-infested waters try to stay as dry as possible!)

While fish may seem more easily trapped and hunted than other animals, you must bear in mind that you need to catch an awful lot of fish to provide the same volume of food as a medium-sized land animal. At the end of the day, your catch must be big enough to justify the time and effort. This will be largely dependent on how well stocked your river is.

Catching fish

Whether you decide to hunt or trap fish, the time-honoured hunting rules apply. Study the fish in your locality, see where the biggest fish prefer to swim as the position of the sun changes, get to know their habits – especially their feeding habits. Once you have caught a fish, study its stomach contents to find out what it



Detachable fishing spear heads: note that both have barbs to prevent them being shaken out by the fish. Both have been carved from wood and bound with twine sealed in gum.

was feeding on. The more you know, the easier your task will be.

Hunting fish

Although hunting fish usually produces a smaller catch than trapping them, it can be a quick way to a short term meal, and is ideally suited to survivors on the move. The hunting tools are also simpler and more easily made than trapping gear.



The RAF issue survival fishing kit contains all the essentials and an instruction sheet on how to use it. If the tactical situation allows you can use the infantry fishing kit, the L2 grenade, in any of the larger pools. Get in and retrieve the fish fast as the explosion invariably bursts the swim bladder.

Fish are able to detect unusual disturbances in the water, and can see movement above the water. To avoid alerting them to your presence, always try to minimise your movement and noise. Walk carefully – fish can feel heavy footfalls through the water.

1 Tickle

Some fish, particularly trout and salmon, will allow you to touch them while in the water. To catch fish like this you need to be actually in the water. The ideal type of stream is wide, and shallow and clear.

Approach your fish slowly and carefully, with your hands already in the water. Once you are close enough to touch the fish, pass your upturned hands under him very gently. You will probably fail the first time you do this, out of sheer astonishment, for the fish seem to nestle against your hands. Once your hands are in position, grab the fish. Bend him in your hands and he won't slip away. In one smooth action, cast him onto the bank. While this technique does require the confidence that comes with practice, it does work, and can be a very effective way to catch fish in the right circumstances.

2 Torch and blade

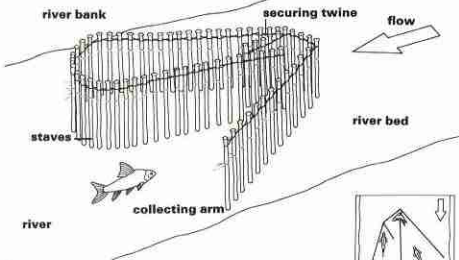
At night, fish can be attracted to light. Wade into a shallow stream with a torch made of birch bark, and you should be able to catch the fish attracted by slashing at them with the blunt end of a machete or a thin blade carved of wood. Make certain you hold the torch high in front of you so as to avoid casting your shadow on the water.

If the river is too deep to wade into, you can use the same technique from the river bank, using a long spear to catch the fish.

Fish maze trap and basket trap

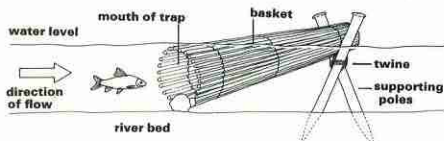
The maze trap

The trap is made up of wooden staves hammered into the river bed with a supporting line connecting the tops of each staff. The trap takes some time to build, but is very effective. The collecting arm should cover the main flow of the river so that the majority of fish swimming upstream are directed into the trap. Each staff should be at least 2 cm thick.



The basket trap

This fish trap is made up of wooden staves bound together to form a telescoping basket. In the faster-flowing parts of the river the fish swims into it but cannot turn round to get out, and finds itself beached at the end of the trap.





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3 Spear and lure

You can easily make fish spears from available wood, and they can be very effective. They fall into two basic categories – pin, and snag. You use the simplest spears to pin the fish to the river bed. They are usually made of a single piece of wood, pronged or split at the point, and crudely barbed. They are very quickly made and very effective.

The 'snag' or 'leister' spears are

These fish traps helped sustain Shoichi Yokoi, a sergeant of the Imperial Japanese army, hiding in the jungles of Guam for 28 years after World War II had ended.

more complicated to make. They work by snagging the fish on barbs rather than pinning the fish to the bottom. For this reason they are better than pin spears in deep water. You can make these spears have detachable heads attached to the spear shaft

by a length of strong cordage. In this way the fish can thrash around without any risk of breaking the spear head.

Spears are best used in conjunction with a suitable lure. Simply carve a small fish-shaped piece of wood, modelled on the local 'small fry', and attach it to a long length of cordage. By drawing this along in the water you should be able to attract the attention of a large predatory fish and 'lure' it within range of your spear. Because water refracts light you will need to aim slightly below where the target appears to be.

4 Line and hook

While you can improvise a line and hook from natural materials, these are best used as 'static traps'. But if you have a survival fishing kit, especially one containing spinners, you will be able to cast your fish. If you don't have any spinners you can improvise them with coins or discarded canned-drink ring-pulls, in fact anything flat and shiny.

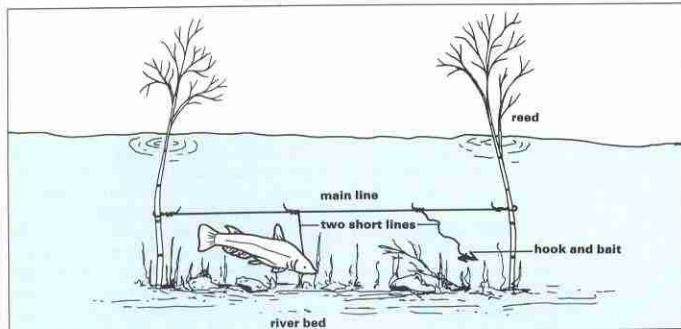
Hooks and lines



A gorge hook is made from a length of wood bent into shape by steaming and then binding a shaped point to one end. These are excellent hooks for set lines.



A trout caught on a set line and gorge hook. Set lines are a practical way to catch fish if you are going to be near a river for some time. Tie several baited hooks on a line and tie the line to a branch overhanging the river.



You may not want to risk using a set line in an evasion situation, but you can use the above set line, known as a stakeout. This is a fishing device you can use secretly by setting a line in darkness between two reeds or similar with lines and hooks attached. Check the line at two-hour intervals until dawn, and then remove.

Trapping fish

Methods of trapping fish are more useful to you in the long run as they free you to work on your other important chores. However, the apparatus you need will take longer to make. If you are establishing your survival camp, setting fish traps should be one of your priorities. Your land traps will usually take less effort to set and can be more easily tuned to full effectiveness.

1 Maze traps

These are the simplest traps you can construct. They are simply holding pens, which fish can enter easily but cannot leave because of the design of the entrance. When you make this type of trap, make sure that the stakes are securely hammered into the stream bed with a stone maul. Lash the tops of the stakes with cordage – your trap has the constant flow of the river to contend with.

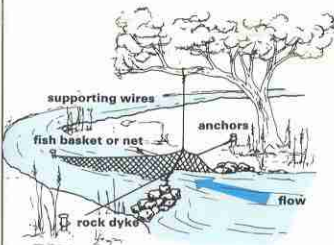
2 Basket traps

Basket traps are slightly more complicated to make than maze traps, but have the advantage that you can carry them easily to wherever there are the most fish. Place the basket so that the river current flows into the basket entrance and raise the downstream end out of the water. Secure the basket with rock or slim willow branches. If you have time you can also construct a funnel of stakes to lead the fish into the basket.

3 Nets

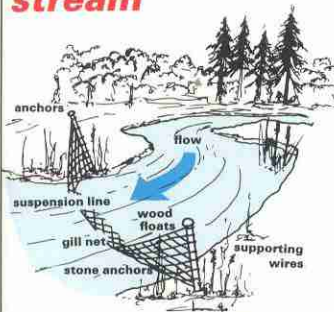
Nets are the hardest fishing aids of all to make, requiring great lengths of

Fish trap in stream



Fish traps can be used for freshwater and saltwater fish. There are very effective but takes a good deal of effort to make, and are difficult to carry if you decide to move on.

Gill net in stream



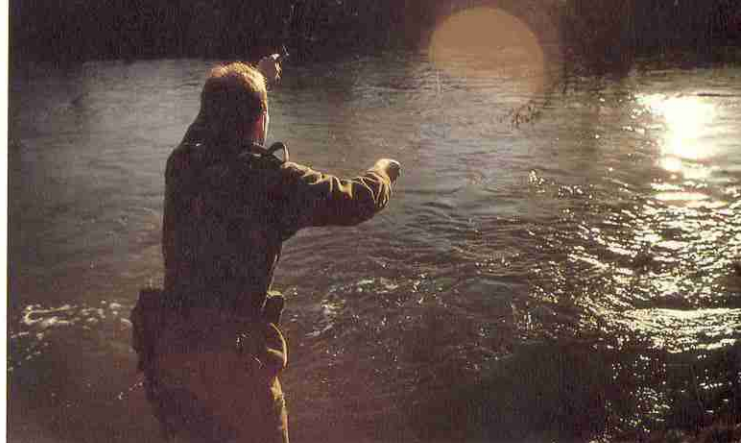
The gill net is perhaps the best way to catch fish, but again it takes time to make it. Stones are used to anchor the bottom of the net and wood floats are set along the top. The net is set at an angle across the river from a suspension line between two suitable anchors.

cordage. Unless you have nylon cord to unravel for netting material or a gill net in your survival kit, this method of trapping is an unrealistic proposition.

If you do have a net set it across a straight section of river. If the river is shallow, place the net at an angle in the water. When you have one, a net is a first rate piece of fishing equipment.

Hook and line

If you have them, fish hooks and line can be used in an endless variety of ways. The easiest and most effective set-up is to set a fixed line across the river and suspend hooks from it at different depths. In this way you can fish several different levels of the river



at the same time.

Always make absolutely certain that your hooks are tied on securely – your life may depend upon them.

Improvising hook and line

In the wild, on your own, you may not be lucky enough to have any hooks or line. But you can improvise them from natural materials.

The simplest improvised hook is the 'gorge' or 'toggle' hook. For this you will need a piece of bone or fire-hardened hardwood. Sharpen this at both ends and secure your line to its middle. When this is baited and taken by the fish it toggles inside the fish's throat, lodging tight. Thorns can also be turned into improvised hooks, and you might even carve a standing hook from a piece of bone.

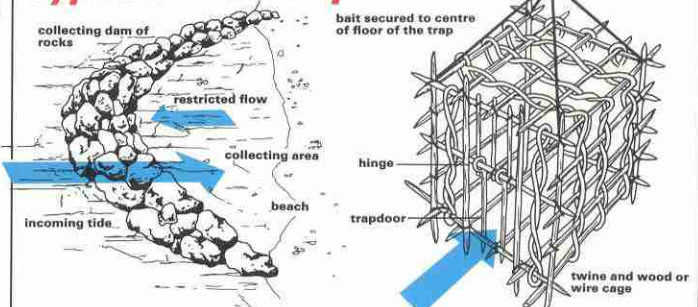
Fishing line is far more difficult to improvise than a fish hook. The strongest line you are likely to be able to make is a very thin rawhide line. Although rawhide loses much of its

Casting a line. Watch where the fish are rising: that is where the line should go. In a river, fish gather in the pools in the deep calm water, at the bottom of small rapids, at the tail of a pool.

strength when wet, it is still appreciably stronger than most of the plant fibres you will have available. Simply cut a piece of rawhide in a spiral until you have a long thin fishing line. Soak the line before use and don't leave it submerged more than a day or two.

Of the plant fibres you can use, nettle fibres are among the best. But, as with all plant cordage, you will need to gather a lot of nettles, and the process of turning them into cord is slow and laborious. Gather the longest nettles you can find and lay them out to dry in the sun. Once dry, they will have lost their sting and can be handled more easily. Take a mallet and split the stems, remove the pith until only the fibres remain. These can then be rolled on your thigh to produce strong cordage.

Types of fish trap



A tidal flat fish trap is simple but very laborious to construct. Pick the location at high tide and construct during low tide. You can simply dam existing rocking pools.

A box-type lobster trap. The door rods should be hinged so that they drop behind the lobster after it enters. Bait and sink in three to 10 metres of water.

Preserving Food in the Wild

To survive in the wilderness you have to become a predator – and that means you have to compete with other, animal predators for the same prey. You can learn a lot about survival by watching the animals around you. Notice how the animal that makes the kill isn't always the one who enjoys the meal.

You can turn this to your advantage, but you also have to protect your kill from being stolen by other animals – not all of them friendly. You need to protect your food from the hordes of bugs and flies that want to eat your food and, worse, lay their eggs in it.

Preserving food is a vitally important skill if you are to survive away from civilisation for a long time. It requires some knowledge and not a little practice to acquire confidence in your own preserved food, but it is well worth the effort. Here is a 'smudge fire' which gently wafts smoke under drying meat or fish. This does not smoke the meat; it simply accelerates the drying process and keeps the flies off while the skin hardens.

With care and the right techniques you should be able to keep your kill at least for long enough to let you eat all of it safely. With practice, you can even preserve your food indefinitely.

Preserving meat

First decide whether or not you intend to hunt large game. Preserving a large animal such as a deer will require considerably greater effort than will preserving a rabbit. The deciding factor is how long you expect to be stranded. If it's likely to be a long time, killing a large animal means less hunting and brings with it a large and useful skin. But it also involves hard work to preserve the meat. Until you become expert at preserving meat you will find it easier to rely on smaller game to stock your larder.

Because all wild meats can carry parasites harmful to man, they must be cooked thoroughly before consumption, regardless of how you preserve them. Efficient cooking destroys parasites and is therefore an essential part of field hygiene.

Drying

Drying or 'jerking' is the easiest way to preserve meat under survival conditions. First slice the meat into strips, approximately two inches wide and a quarter of an inch thick. Then string them on a thin stick or drape them over a bar on your drying rack. Make sure they are not touching each other.

Until the surface of the meat has dried you run the risk of flies laying their eggs in it. You can prevent this with two simple precautions. Either site your drying rack in a sunny and windy location or, the more effective method, lay a slow smouldering fire under the rack. This will speed up the drying process as well as keeping off insects. Make absolutely certain, however, that the fire is giving out only a low heat and not much smoke. Don't

Making a survival sausage



Dried meat can be made into pemmican – the survivor's sausage – by drying pieces of meat, mixing with berries and sealing with rendered fat.

use green vegetation to produce the smoke, or you will taint the meat. If you need to increase the smoke, use some damp wood chips or bark from a non-poisonous tree.

The smoking can be stopped once the surface of the meat is dry. Allow the meat to hang in the sun or a dry place until it is brittle. It can then be stored, wrapped in dry grass and bark, until you need it. To use dried meat, you can rehydrate it for broiling or steaming or, better still, just add it to a stew.

Pemmican

Once you have a store of dried meat, you can consider making pemmican, the survivors' home-made, high-energy, high-protein emergency ration. Pemmican is ideal for long hunting trips or if you intend to make a break from civilisation. Take your brittle dried meat and pound it between two rocks until it is a powder. You now have the equivalent of a survival stock cube. Next, mix the powdered meat with sun-dried berries and plenty of rendered fat. Form the resulting sticky mass into palm-sized pellets and place these in the cleaned large intestine of an animal. Seal the ends by tying and with fat. You now have a survival sausage which can be eaten as it is, or sliced and added to stews, or fried on a hot stone.

Freezing

In Arctic conditions you may be able to store your meat by letting it freeze. But remember – even when frozen, the scent of the meat will be detected by other hungry predators. Make certain it is out of their reach.

Be sure that you will be able to cope with the meat once it is frozen. The most common mistake made by survi-



Drying fish in close-up: because fish goes off so quickly you must use a smudge fire or actually smoke the fish in a slow trickle of woodsmoke. Properly smoked fish is one of the true delicacies available to the switched-on survivor.

vors is to freeze large pieces of meat. Instead, butcher it into meal size portions – they don't take a week to defrost. Make quite sure the meat is thoroughly defrosted before cooking.

Preserving fish

Your fish can be preserved along with your meat. Treat fish in the same way as meat – dry it, or make it into pemmican. The only difference is that fish goes off far more quickly, so must be dried as fast as possible. In all but the sunniest weather, this will mean you have to use a smudge fire or a smoke house.

Smoking

You can also deliberately flavour fish by smoking it. To do this you will need to hang the fish in a smoke house. Score the flesh before hanging, so that the smoke permeates the flesh better.

Smoking fish in a smoke house is little different to operating a smudge fire. A slow trickle of woodsmoke does the trick. Once you have started smoking the fish, check it on a regular

basis. There are two stages in smoking fish: half smoking, and full smoking. Half-smoked fish is still soft and flavoured of wood, ready for eating. Fully smoked fish is dry and brittle. Treat it in the same way as dried meat.

Fish pemmican is certainly an acquired taste when eaten raw. But it is an excellent addition to soups and stews, and can be fried to make delicious fish cakes.

Preserving fungi

If you are lucky you may be stranded during a glut of edible fungi. To preserve them for future use, you can dry them.

First clean each individual fungus, cutting out any parts attacked by insects. Be particularly thorough with fungi that have gills or pores, as these are a favourite breeding ground for grubs. Then string the fungi together on a cord or stick, and hang them in your smoke house or shelter to dry. Some fungi such as the Horn of Plenty can be powdered to use as a stew flavouring, while others are best served whole as chewy stew ingredients.

Preserving plants

In general, plant foods are best used fresh. But at the onset of winter you must certainly consider stockpiling your supplies.

The easiest parts of plants to preserve are the young green leaves used for teas. Don't pick the leaves and store them in containers – simply dry the stalks of the plant itself. With plants such as nettles, use the fibres in the dried stem for cordage. Store bundles of useful herbs in your shelter or smoke house.



Heat the fat in a mess tin or similar to render it down and provide the liquefied fat which will bind the powdered meat into a stodgy mass. You can add dried berries for extra flavour.



The finished pemmican: the rendered fat and powdered meat mixture is stuffed into the cleaned-out intestine of a large animal. You can eat it cold, cutting off slices as you need them; or you can fry it or add it to stews.

Survival

Dry and grind up roots to use as flour, or bury them in layers of dry sand. Cover this to keep it dry.

Nuts are best stored either as a flour, or in open containers, still in their shells. Keep them dry and stir them regularly to prevent mildew.

Dry fruits by laying them on warm stones in the sun, and store them in containers with lids. Above all keep them dry.

The best way to store seeds long-term is by parching them. Only make flour in small batches. Otherwise you risk losing your whole crop to weevils.

Storing food

Your food store must be safe from mammals, must be dry, and must have a constant temperature. A properly constructed smoke house will meet many of these criteria, but don't use it to store all your food. "Never keep all your eggs in one basket" is the golden rule when storing your life-saving food.

The easiest larder to make is an underground cache. Try to find a dry, sheltered piece of ground – for example, under an overhanging bush or log. Dig a hole about two feet deep, and line the pit with bark slabs. Birch or cherry bark is ideal for this. Further line the pit with dried and, if possible, smoked grass. Place your food packages into the pit, followed by more grass. Then add some dried aromatic herb (such as marjoram) to disguise any scent from the food. Finally, seal the pit with bark and the soil you originally removed.

Take care to note exactly where you have buried the food, or mark the location so that you can find it again even after a heavy snowfall.

Predator, thief, and carrion crow!

No animal will stop itself stealing your food out of a sense of fair play. In the same way, don't miss any opportunity to steal from a wild animal. You can turn even the rotting remains of a predator's meal into a life-saving stew if you are hungry enough. Skin and gut the remains in the normal way, and then thoroughly boil the rancid meat for as long as possible. To eat the stew you will need to hold your nose, but it will keep you alive.

This emergency stew *cannot* be reheated. Discard what you don't eat. If you reheat it, a dangerous botulism results.

Hanging food

You can preserve food from the attentions of the local wildlife by numerous methods. A tall sapling can be bent back and game secured to it, which will keep it out of reach while you are away from the camp.

Rope bundle

Another method of keeping food out of reach is to sling it between two trees, rather like a hammock.

Two can play this game

Animals may try to make off with your food, but you can do the same to them. Even rotten meat from an old kill can be eaten if you boil it a long time and hold your nose when eating it. It may be disgusting, but it could save your life.

Bark breaks

If you are going to store a lot of food out of reach of animals on a regular basis, you will need to stop squirrels and other small mammals from climbing up. A metal sheet fixed round the trunk will prevent them from being able to grip.

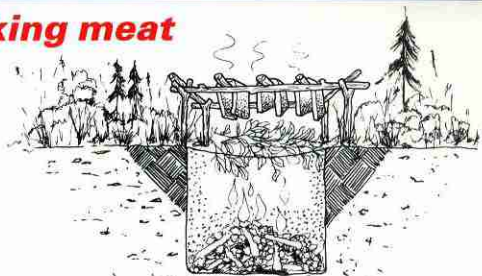
Drying meat

To prepare meat for drying or smoking, cut it into strips along the grain of the meat. The strips should be about five cm wide and just under a centimetre thick.

The bear necessities

Here two grizzled survivors are preserving enough food to see them through a Canadian winter, but their larder is being raided. One of the problems with preserved food is that it attracts the attention of all sorts of animal life, from the weevil to the brown bear. The problem does not disappear with the onset of winter: even frozen food in the Arctic can be sniffed out by the enterprising polar bear, and unless you are well armed you can't argue with him.

Smoking meat



Smoke your meat over a wood fire using timber from a deciduous tree, ideally willow or birch. Do not use conifers like pine or fir trees because their smoke will impart a vile taste to the meat. You can hang meat high above a slow, smouldering fire, but a quicker method is to dig a hole about a metre deep and 50 cm wide. Get a fire going at the bottom and pile on green wood to create the smoke. Place the meat on an improvised grate over the hole. One night of heavy smoking will preserve meat for five to seven days; two nights and it will remain edible for two to four weeks. When properly smoked, the meat will look like a dark, curled stick. It is highly nutritious and, best of all, it tastes good.

Wind curing

You can cure meat by hanging it up to let the sun and wind do the job of a smudge fire. Try to hang it at least five metres high so that the flies cannot get to it.

.44 Magnum

In the USA some people pack a .44 when they go hunting just in case they have a problem with their rifle when they encounter something particularly beefy. This may sound extreme, but it could be disagreeable to find yourself nose to nose with a grizzly and nothing but a .22 survival rifle in your hand.

Fire reflector

These survivors have built a simple reflector from logs which enables them to gain the maximum benefit from their fire.

Fat and soap

A useful by-product of permacan-making is soap. If you have any rendered fat left over, mix two parts fat with one part of wood ash from the fire. Boil it until it thickens and you have a primitive but effective form of soap. Not quite Imperial Leather, but it will do.

Unarmed Combat Course

No. 14

ARMLOCKS AND WRISTLOCKS

Inside wristlock

Armlocks and wristlocks are very important techniques. They enable you to defend yourself and to control your attacker; when you've got him in an armlock, you can force him to move wherever you want him to. But you should practise only under the supervision of a trained instructor – wristlocks in particular are very painful, and both can lead to a break unless applied with caution.



1 This wristlock is a good defence against a chest grab. Here, the attacker has grabbed you by the lapel of your jacket.



2 Reach over with your right hand and grasp the attacker's hand, with your fingers on the inside of his palm and your thumb on the back of his hand.



3 You then pull his hand away from you and, at the same time, bend it so that the edge of your own hand falls into the crease.



4 Then put your other hand up in a similar manner, with your thumb on the back of the attacker's hand. As you bend his wrist he is forced downwards.

ARMLOCKS AND WRISTLOCKS

Bent armlock



1 Often used as a defence against a blow from above, the bent armlock also works against the elbow joint.



2 Block the attacker's blow, then move your free hand behind the attacker's arm to grasp the wrist of your blocking arm.



3 The attacker is forced on to his back by pressure being applied to his elbow joint. Again, remember that this technique must be practised under trained supervision.

Straight armlock



1 The straight armlock, like the others, can be used in a variety of situations, but we will start again with the attacker grabbing your chest.



2 Control the attacker's wrist with your left hand whilst your right hand grabs his fingers and turns his palm upwards, locking his elbow.



3 Keeping the pressure on the attacker's wrist, your own arm is pressed down on the attacker's elbow joint and grasps your own blocking wrist. The attacker is now in a straight armlock.

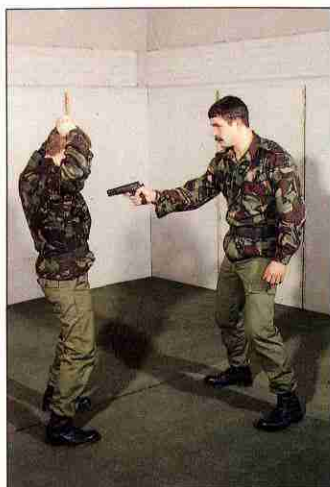
Unarmed Combat Course No. 15

DEFENCE AGAINST A PISTOL ATTACKER

Part 1

Inside wrist-strike and blow to chin and groin

If you are faced by a pistol-armed attacker, the odds are all in his favour. But fast reactions on your part can defeat him: action is faster than reaction, and if you can manage to get within striking distance, make your move. Remember: do not use a real firearm in practice.



1 The attacker is pointing a pistol at your chest and forces you to keep your hands up. You slowly close the distance but do not appear threatening.



2 Suddenly swing your left arm downwards to strike his right wrist and push the gun away.



3 Knee him in the testicles and smash his chin with the heel of your right hand while your left hand controls his gun arm. Seize the gun before he has time to recover and then step back so that he cannot try the same trick.

Handclap strike to wrist



1 The attacker is standing in front of you, levelling a pistol at your chest. He has ordered you to put your hands up.

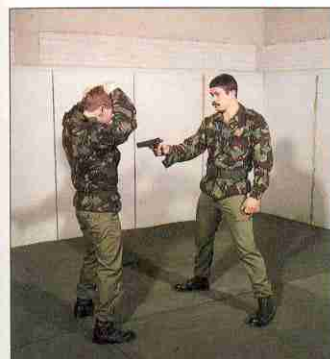


2 Lower your arms very slowly and move close enough to strike. Again, you must do this carefully and appear frightened, not threatening.

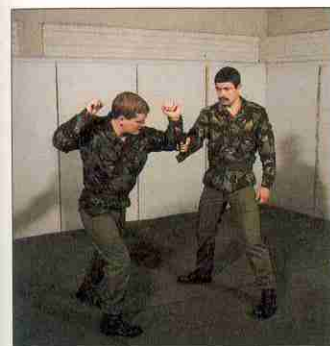


3 Make a sudden handclap action against his gun hand, making him drop the gun.

Left body sway and outside wristlock



1 The attacker is standing in front of you, levelling a pistol at your chest. He has ordered you to put your hands up.



2 Move slowly to one side; he will move the pistol to follow you. Then twist at the waist and knock the gun aside with your left arm.



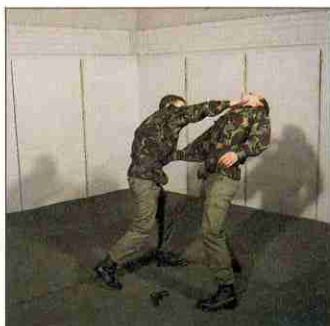
3 Grasp the attacker's wrist with both hands and apply an outside wristlock.



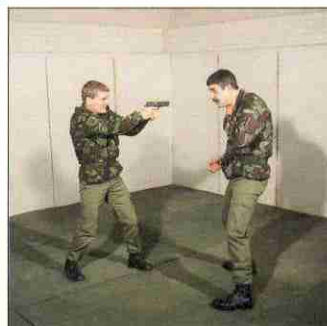
4 Yank the attacker backwards to force him over and make him drop the gun. Seize the weapon and back away.



4 Closeup of the handclap action: one hand strikes his hand holding the gun and the other hits his wrist.



5 The handclap action is followed up straight away with a blow to the attacker's throat.



6 Pick up the gun and back away before the attacker has time to recover.

Unarmed Combat Course

No. 16

DEFENCE AGAINST A PISTOL ATTACKER

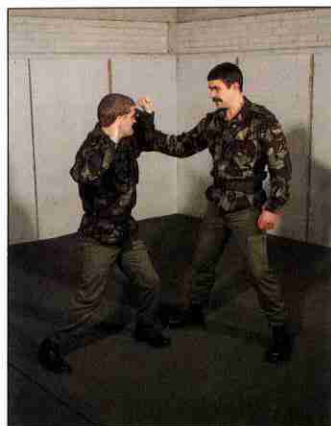
Part 2

These techniques for dealing with a pistol-armed attacker depend on you being close enough to tackle him. A humble, frightened attitude will help to convince the attacker that you are not a threat. Do not use a real firearm in practice.

Inside arm sweep, blow to chin and groin



1 If the attacker is behind you, you need to check which hand the gun is in. Glance over your shoulder saying something like, "Where are you taking me?"



2 Turn smartly to the left and knock his gun arm aside with your left forearm.



3 Deliver a chin strike with the heel of your hand and simultaneously knee him in the groin. This should enable you to seize the gun, back away and take control of the situation.

Unarmed Combat Course No. 17

DEFENCE AGAINST ATTACKER WITH A COSH

Defence against a swinging cosh



1 The attacker comes at you with a cosh and lifts it up, ready to take a swing at you.



You must tackle an attacker armed with a cosh in the same way as any armed opponent: go for the weapon before the man. The defences shown here include basic armlocks as well as more advanced throws.

The defence against a double arm grab is included as another example of a throw being a very effective defence. Remember that a cosh or stick is most dangerous at the tip of its striking arc, so your best defence lies in getting in close.

2 From the defensive stance, block his weapon arm using your right forearm.



3 Swing your left arm over the attacker's weapon arm ready to apply a straight armlock and force the attacker to the ground.



4 Use the armlock to bring him down; then you can seize the weapon and take control.

Defence against a double arm grab



1 The attacker grabs you with both arms from the front. You bring up your arms and grab him just below the shoulders.



2 Pull back, pushing your right foot deep into his stomach and pivoting back on your left leg.



3 A smart tug backwards and a good push with your right leg will send the attacker flying upside down. This is a good technique to practise, but do not attempt these moves without trained supervision.

The body throw defence



1 The attacker runs at you, preparing to put his full weight behind the blow.



2 At the last moment you duck right down and he can't help overbalancing.



3 Suddenly swinging up, you hurl the attacker off his feet using a body throw. Use your arms as well as your back to propel the attacker up and over.

Unarmed Combat Course No. 14 **ARMLOCKS AND WRISTLOCKS**

Inside wristlock

Armlocks and wristlocks are very important techniques. They enable you to defend yourself and to control your attacker; when you've got him in an armlock, you can force him to move wherever you want him to. But you should practise only under the supervision of a trained instructor – wristlocks in particular are very painful, and both can lead to a break unless applied with caution.



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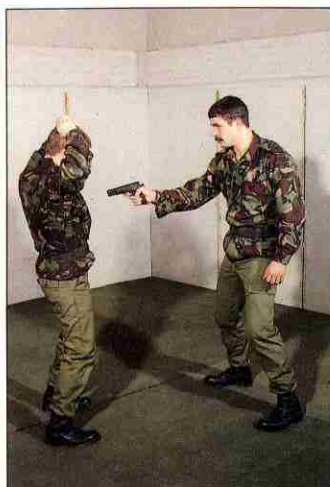
Unarmed Combat Course No. 15

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3 Kneel him in the testicles and smash his chin with the heel of your right hand while your left hand controls his gun arm. Seize the gun before he has time to recover and then step back so that he cannot try the same trick.

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2 Lower your arms very slowly and move close enough to strike. Again, you must do this carefully and appear frightened, not threatening.



3 Make a sudden handclap action against his gun hand, making him drop the gun.

Unarmed Combat Course No. 8

DEFENCE AGAINST FRONT CHOKES

You have to react rapidly if the attacker tries to choke or strangle you: you have only a few seconds to free yourself before unconsciousness or worse. Once again, all these techniques must only be practised under qualified supervision.

Single arm swing and reverse elbow strike



1 The attacker grasps your throat with both hands, applying pressure to the two arteries in your neck that supply blood to the brain.

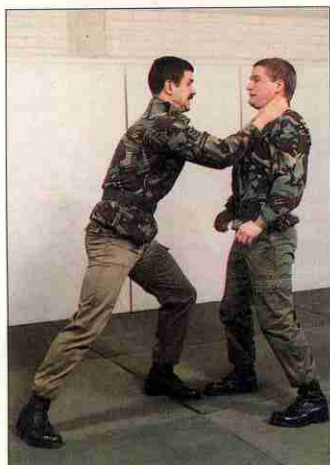


2 Use your legs to drive your body upwards, swinging your arm over the attacker's arms, and twist sideways.

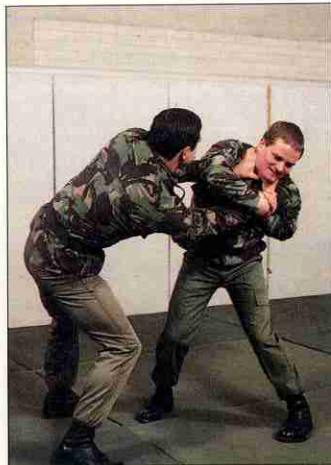


3 Swing yourself sharply back the other way and deliver an elbow strike to the attacker's head.

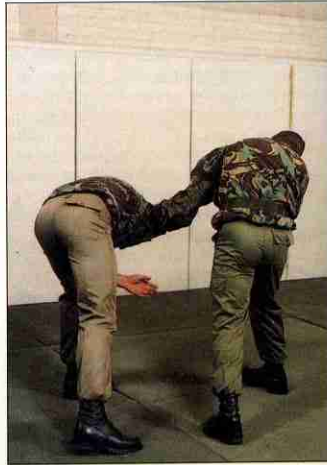
Both hands grasp attacker's wrist for straight armlock



1 The same starting position: the attacker is strangling you with both hands.

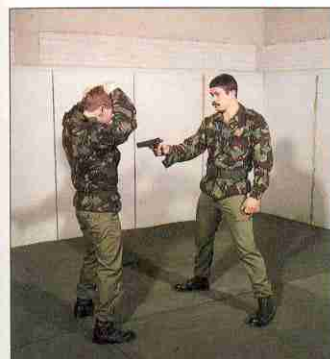


2 Grasp the attacker's left wrist with both your hands, then drive your right elbow over his elbow joint.

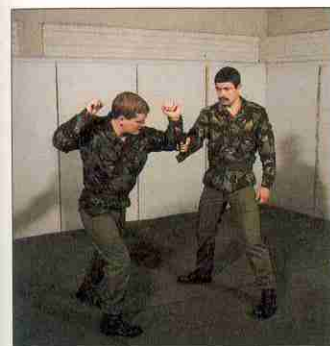


3 This turns him, allowing you to apply a straight armlock and take control of the situation.

Left body sway and outside wristlock



1 The attacker is standing in front of you, levelling a pistol at your chest. He has ordered you to put your hands up.



2 Move slowly to one side; he will move the pistol to follow you. Then twist at the waist and knock the gun aside with your left arm.



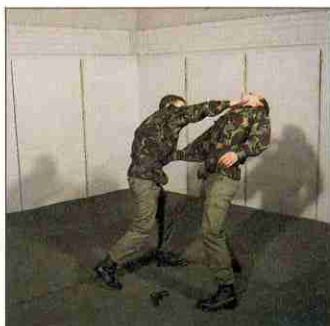
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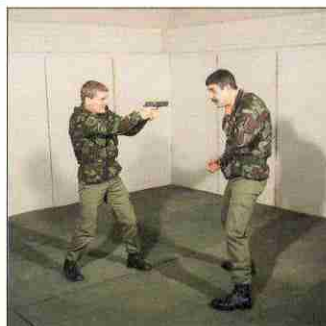
4 Yank the attacker backwards to force him over and make him drop the gun. Seize the weapon and back away.



4 Closeup of the handclap action: one hand strikes his hand holding the gun and the other hits his wrist.



5 The handclap action is followed up straight away with a blow to the attacker's throat.



6 Pick up the gun and back away before the attacker has time to recover.

Unarmed Combat Course No. 18

FACING TWO ATTACKERS

Part 1

Defeating kicks and wristholds

If you are attacked by more than one person your survival depends on your ability to react quickly to each threat. In these sequences the defender faces two attackers and must switch instantly from one defensive technique to another.



1 One attacker comes at you from the front and uses a snap kick; you block his ankle with a cross-arm parry.



2 By twisting his ankle sharply you floor the attacker.



3 The second attacker appears to your left so you finish off attacker no. 1 with a kick to the groin.



4 Attacker no. 2 tries to pull you away with a wristhold.



5 Free your arm using an assisted release, swinging your body away from the attacker.

6 Now swing sharply back and deliver an elbow smash to the second attacker's jaw.



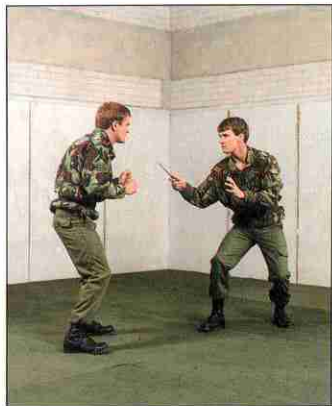
Unarmed Combat Course

No.21

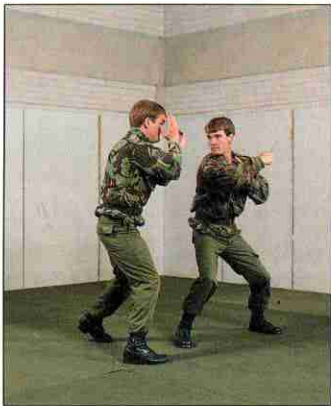
DEFENCE AGAINST ARMED ATTACKERS

Part 1

In this sequence the defender faces two attackers, both armed with knives. You must remember that the knife is at its most dangerous when close, so you need as much room as possible for an effective defence. Remember: never use a real knife when practising these techniques.



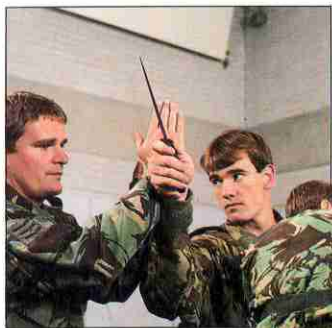
1 You are confronted by an attacker armed with a knife. Note how he is holding it: will he stab or slash?



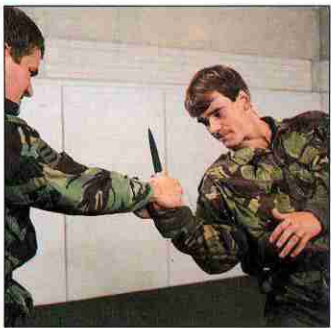
2 The attacker prepares to slash you with the knife; you move your hands up for a forearm block.



3 Block his returning arm ready to apply an outside wristlock.



4 Close-up of the forearm block about to move into a wristlock.



5 As usual your thumbs should be together, gripping the attacker's hand.



6 You use the wristlock to force the attacker over on to his back, just as the second attacker makes his move.



A short jog or, in this case, running up and down on the spot very quickly, prepares your body for the work-out. Blood flow to your muscles is increased and you are now mentally prepared for exercise.

your work-out much more and your body will move more economically.

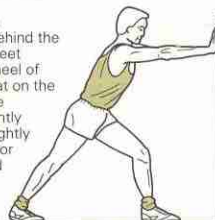
Just as you would not dream of driving a car at 70mph in the first few seconds, neither should you push your body into 'overdrive' before it is fully prepared. Your heart rate should be gently increased from its normal resting rate (about 72 beats per minute) up to an exercise starting rate of 90 to 100 beats a minute. This will allow more blood to be pumped to the working muscles in a progressive manner as well as providing them with the necessary fuel and oxygen. The blood vessels will also open up to allow increased blood-flow to all working muscles. Your body temperature will increase one or two degrees but not enough to cause a state of fatigue.

Another important aspect of the warm-up is getting a good 'mind-set' for your work-out. Your warm-up clears the mind, allowing you to forget the strains and stresses of the past day or two. Concentrate only on what you are going to do in your work-out: the planned exercises, heart rate levels, jogging route etc. It is also useful to remind yourself of all the benefits that the work-out will bring and then there is only one thing left – do it!

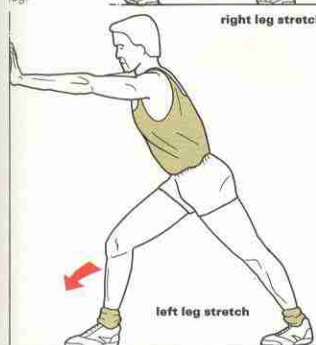


6 Calf stretch

Place one foot behind the other with your feet parallel and the heel of your back foot flat on the ground. Bend the forward knee gently until you feel it lightly stretched. Hold for a count of 10 and repeat three times on each leg.



right leg stretch



left leg stretch

7 Hamstring stretch

Stand on one leg and place the other in front on a support. Bend forward from the waist and reach forward towards the raised foot until you feel a gentle stretch. Hold for a count of 10 and repeat three times on each leg.



right leg



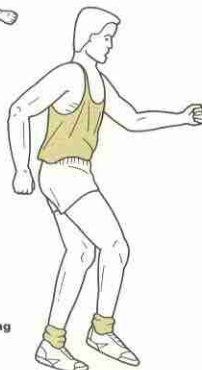
left leg

8 Warm-up jog

Take an easy jog for 2-3 minutes with one or two short sprints. This completes the warm-up, easing your body into physical activity in a safe and enjoyable manner.



short sprint

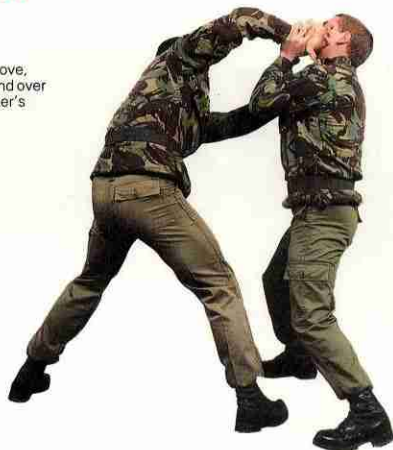


2-3 minutes jogging

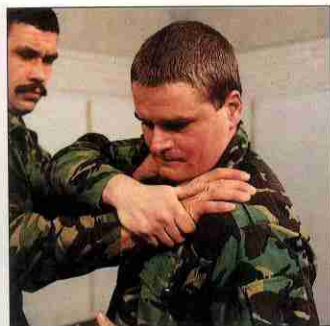
Hand over inside wristlock



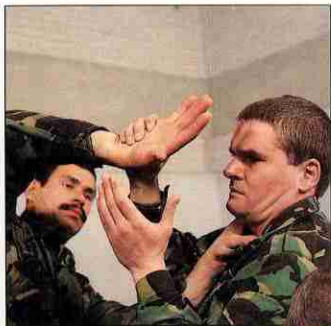
1 As in the last move, bring your right hand over to grasp the attacker's right hand.



2 Grab his hand and wrist with both your hands and rotate his arm to apply an inside wristlock.



3 The wristlock in close-up: your right hand is over the attacker's right hand, your thumb is on the outside, touching his knuckles.



4 Pull his hand up and twist it, then bring your left hand up to join your right.



5 Your left hand is now positioned in the same way; both thumbs are together on the outside of the attacker's hand.



6 Applied vigorously, the inside wristlock allows you to control the attacker. Don't forget to release immediately this is effective when you are in a practice session.

Unarmed Combat Course No. 11

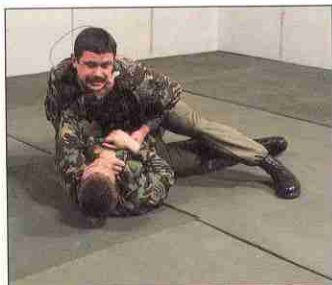
CONTROLLING THE ATTACKER ON THE GROUND

It is important that you are familiar with the basic techniques of ground holds. Once controlled on the ground your options are very limited, so if the fight does end up there it must be you who does the controlling. There are many techniques for controlling someone on the ground; the following are simple and effective.

Roll the attacker off



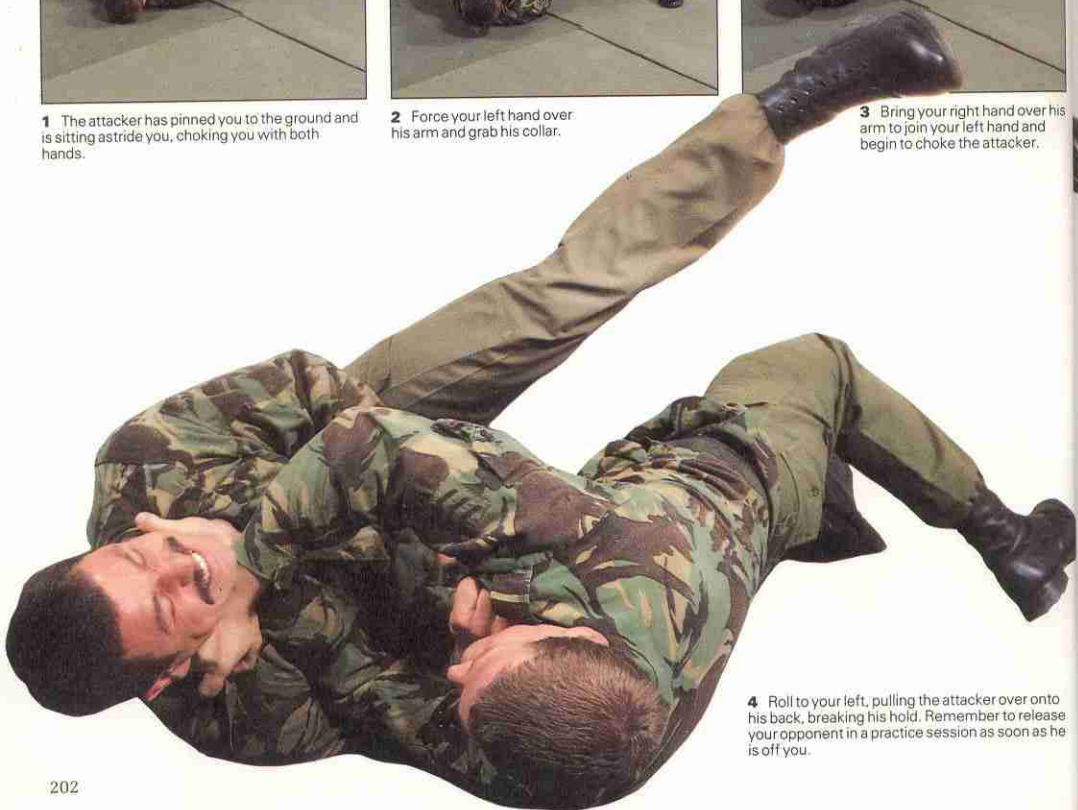
1 The attacker has pinned you to the ground and is sitting astride you, choking you with both hands.



2 Force your left hand over his arm and grab his collar.



3 Bring your right hand over his arm to join your left hand and begin to choke the attacker.



4 Roll to your left, pulling the attacker over onto his back, breaking his hold. Remember to release your opponent in a practice session as soon as he is off you.

Unarmed Combat Course

No. 16

DEFENCE AGAINST A PISTOL ATTACKER

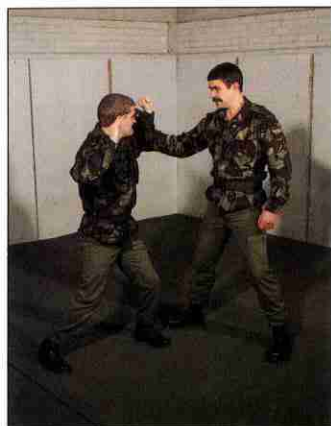
Part 2

These techniques for dealing with a pistol-armed attacker depend on you being close enough to tackle him. A humble, frightened attitude will help to convince the attacker that you are not a threat. Do not use a real firearm in practice.

Inside arm sweep, blow to chin and groin



1 If the attacker is behind you, you need to check which hand the gun is in. Glance over your shoulder saying something like, "Where are you taking me?"



2 Turn smartly to the left and knock his gun arm aside with your left forearm.



3 Deliver a chin strike with the heel of your hand and simultaneously knee him in the groin. This should enable you to seize the gun, back away and take control of the situation.

Defeating single wristhold and double arm grab



1 Faced by two attackers, one grabs you by the wrist.



2 Free your arm by swinging it outwards against his thumb.



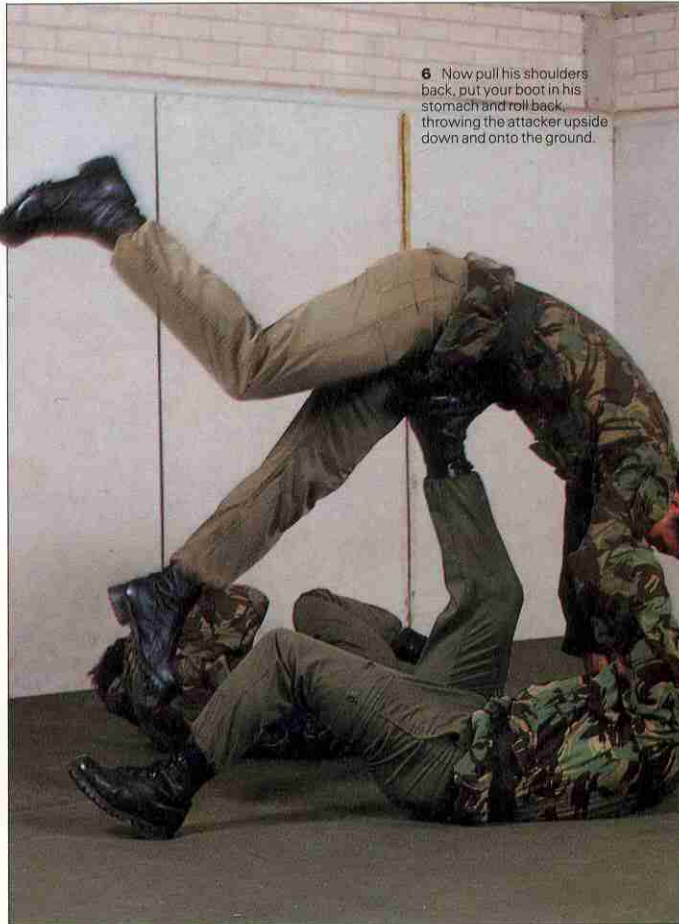
3 Follow up immediately by striking his chin with the palm of your hand.



4 Attacker no. 2 rushes forwards and tries to control you with a two-handed grab to your chest.



5 Counter this by grabbing his shoulders and pushing forward ready for a stomach throw.



6 Now pull his shoulders back, put your boot in his stomach and roll back, throwing the attacker upside down and onto the ground.



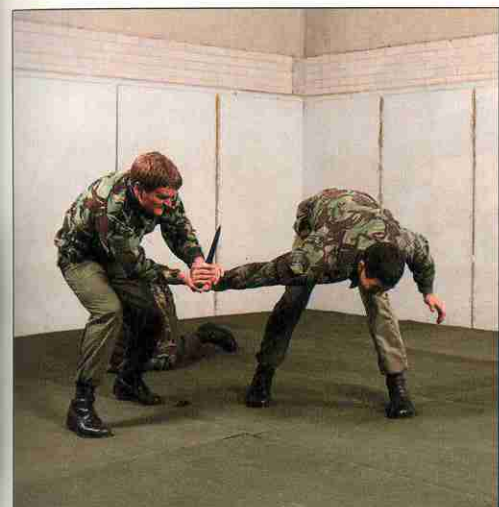
7 The second attacker tries to stab you but you block the knife thrust with an X block against his wrist. Note how the defender shoots his most vulnerable parts to the rear, presenting as small a target as possible.



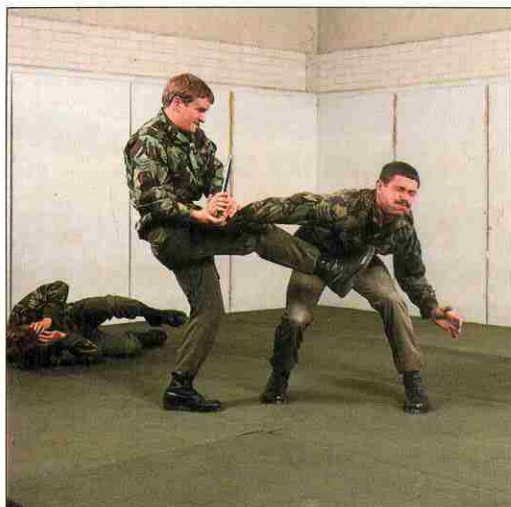
8 Close-up of the X block in action: the two forearms stop the forward movement of the knife.



9 Now you move from the block to the wristlock, one hand on his knife hand and then the other.



10 With the wristlock applied you can control the attacker, bringing him forward and down, ready to be counter-attacked.



11 Follow up with a kick to finish him off and seize the attackers' weapons.

AEROBIC EXERCISE – THE KEY TO PEAK FITNESS

There are many methods of keeping fit, but none are as important as aerobic fitness. Aerobic means 'with oxygen', and it is the key to surviving modern sedentary living and enjoying a healthily energetic life. The aim of aerobic exercise is to improve those organs and systems involved in your body's processing of oxygen: the heart, lungs and blood vessels.

Use of oxygen

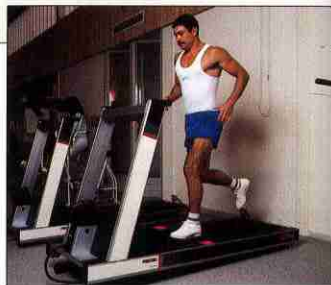
An improvement in the functioning of these areas leads to better utilization of oxygen and a much fitter individual.

The principal aerobic activity is jogging. Millions of people all over the world go for a daily jog; why do they do this, and what are the benefits?

Benefits of aerobic exercise

Your aerobic fitness is the ability of your respiratory and circulatory systems to supply oxygen during sustained physical activity. A good level of aerobic fitness provides many benefits, including:

- 1 Increased heart efficiency
- 2 Increased lung efficiency
- 3 Reduction in body fat
- 4 Reduction in cholesterol
- 5 Release of stress and tension



Aerobic exercise increases the ability of your heart and lungs to supply oxygen to the blood. Running is one of the most effective of this type of exercise.



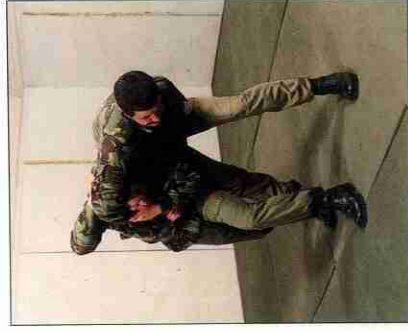
DEFENCE AGAINST STRANGLES FROM THE REAR

It is harder to defend yourself against a strangle from the rear, but the defences shown here will work if you practise regularly. You must develop fast reactions to deal with a strangle before it becomes effective. As usual, practise these techniques only under qualified instruction and release your opponent as soon as you have defeated the strangle attempt.

Elbow over head and armlock



1 You are attacked from behind and your opponent attempts to choke you with his right arm.

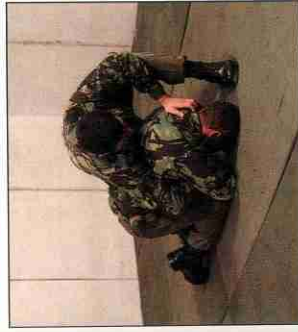


2 Take your attacker's wrist with your left hand and force up his elbow with your right, pulling his elbow over your head.

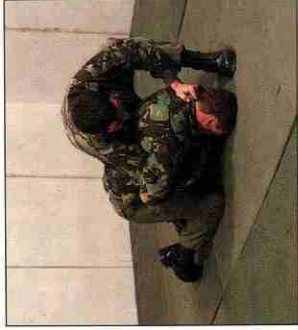


3 By pulling the attacker's elbow over your head you pivot behind him and apply a bent armlock behind his back. Remember to release this as soon as it is effective when you are practising.

The defensive position



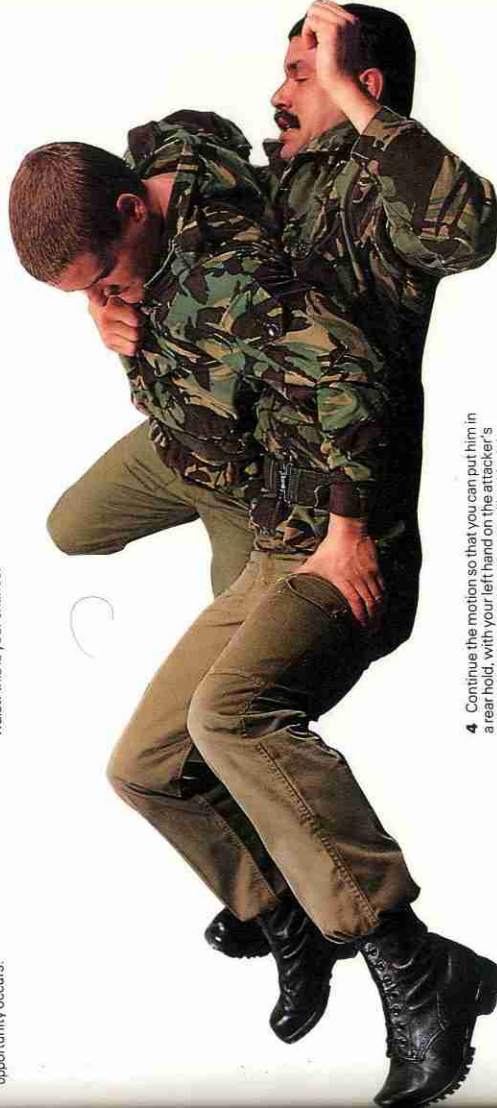
1 If you have no other option, this defensive position gives the most protection until an opportunity occurs.



2 Keep your hands ready to grab the attacker. Here he has reached over to grab you around the waist: this is your chance.



3 Grab the attacker's sleeve and pull sharply to make him lose balance. He will roll over your back.



4 Continue the motion so that you can put him in a rear hold, with your left hand on the attacker's left thigh and your right arm controlling his right arm.

The upper hold



1 Lying at the attacker's upper end, pass your right arm under his armpit and grab his collar. Your left arm does the same on the other side.



2 With both hands holding the attacker's collar, keep your hips low to the ground and your feet spread wide. The pressure will control the attacker's head.

Unarmed Combat Course No. 17

DEFENCE AGAINST ATTACKER WITH A COSH

Defence against a swinging cosh



1 The attacker comes at you with a cosh and lifts it up, ready to take a swing at you.



You must tackle an attacker armed with a cosh in the same way as any armed opponent: go for the weapon before the man. The defences shown here include basic armlocks as well as more advanced throws.

The defence against a double arm grab is included as another example of a throw being a very effective defence. Remember that a cosh or stick is most dangerous at the tip of its striking arc, so your best defence lies in getting in close.

2 From the defensive stance, block his weapon arm using your right forearm.

3 Swing your left arm over the attacker's weapon arm ready to apply a straight armlock and force the attacker to the ground.



4 Use the armlock to bring him down; then you can seize the weapon and take control.

Unarmed Combat Course No. 19

DEFENCE AGAINST DOUBLE ARM HOLDS

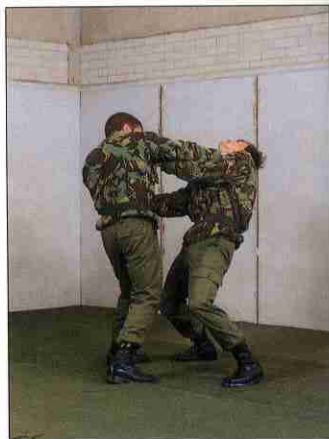
In this sequence the defender is attacked from behind while he is dealing with a frontal assault. The key to success lies in reacting quickly as the situation changes, and remembering that just because the enemy to your front is down the fight may not yet be over.



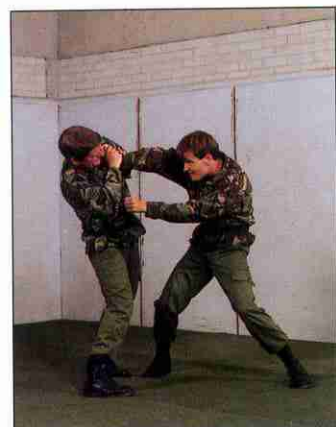
1 The attacker comes at you from the front and attacks with a double arm hold.



2 You react by trapping the attacker's wrist.



3 Now deliver a sharp blow to the attacker's undefended throat. Do not use full force when practising this.



4 Having kept hold of his right arm, you can now apply an outside wristlock, forcing the attacker down.



5 As you twist his arm, attacker no. 1 is forced down but attacker no. 2 is closing in from behind. You quickly finish off the first attacker with a kick.

Unarmed Combat Course No. 22

DEFENCE AGAINST ARMED ATTACKERS Part 2

Cosh and strangle attack

In these two sequences the defender faces a mixture of armed attackers and demonstrates a series of defensive moves. In many cases you need to seize the attacker's weapon, but if you actually use it in a civilian situation you could face prosecution. Never use real weapons in practice sessions.



1 You are attacked from behind and the attacker tries to strangle you.



2 Free yourself by reaching down and grabbing the attacker's testicles while hanging on to his strangling arm.



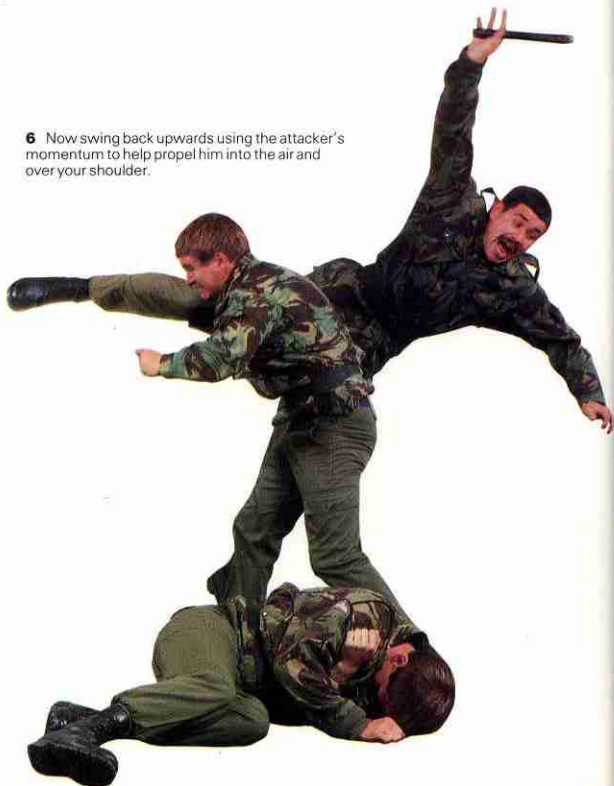
3 Attacker no. 2 has pulled out a cosh, so you finish off the first attacker with a shoulder throw.



4 Attacker no. 2 comes running forward ready to strike you, but you are leaning forward after the shoulder throw.



5 Taking advantage of your position, move in low as the attacker reaches you, your right arm going under his legs as your left arm deflects the cosh.



6 Now swing back upwards using the attacker's momentum to help propel him into the air and over your shoulder.

1 Heart efficiency

The heart is a muscle which, like all other muscles, thrives on physical activity. It grows stronger with the right kind of exercise and weaker without it. A strong, trained heart can get more oxygen-carrying blood to your other muscles by beating faster and more powerfully. Muscles require oxygen to work and if they do not receive enough they quickly become tired. The ability of your heart to pump blood is critically important during exercise especially, if the activity is sustained.

2 Lung efficiency

Aerobic exercise increases the efficiency of your lungs and also strengthens the muscles that make the lungs expand and contract. Oxygen is collected by the blood as it passes through the lungs, and then carried to the working muscles. If your lungs are not healthy (for example, due to smoking) oxygen cannot be collected efficiently, reducing your ability to exercise for long periods.

3 Reduction in body fat

Many people are overweight through a lack of physical activity, and obesity is a major coronary risk factor because it imposes extra work on your heart. Regular aerobic exercise at a moderate intensity increases the rate at which

you burn up calories, which results in a lower percentage of body fat. This can be achieved through a regular programme of aerobic activity lasting 20 to 30 minutes, three to five times a week.

4 Reduction in cholesterol

If you do not take regular exercise your body is likely to produce more low density lipoprotein (LDL) cholesterol, which leads eventually to heart disease. Physically active people appear to produce more of the higher-density lipoprotein (HDL) cholesterol, which scavenges the LDL 'bad' cholesterol and transports it to your liver for disposal. Studies show that to produce a high level of HDL you need to jog at least 15 miles a week.

5 Release of stress and tension

High levels of stress are strongly linked with unnecessary tiredness, illness and premature heart disease. If you are highly tensed your body becomes chemically out of balance through the increase in stress hormones such as adrenalin. Aerobic exercise is nature's tranquillizer, and by re-distributing the stress hormones it brings the mind and body closer together for a natural feeling of well-being.



The principles of aerobic exercise

1 Frequency

Beginners should work out aerobically 2-3 times a week, building up to 4-5 times a week for peak fitness.

2 Intensity

You should exercise hard enough to increase heart and breathing ability to between 60 and 80 per cent of maximum capacity. Lower than 60 per cent does not provide good training effect unless you are monstrously unfit. Higher than 80 per cent takes you into anaerobic ('without oxygen') exercise, which you will not be able to maintain for long periods. In Part 9 of the Battle Fitness Programme we will show you how to check your pulse rate.

Swimming is another good aerobic exercise although, unlike this Royal Marine, you do not have to do it with a rifle!

3 Duration

To get the full benefits of aerobic exercise you will need at least 20 minutes of moderate/high intensity activity. This should increase to 30-45 minutes if you are very fit and 45-60 when you are at peak fitness.

4 Type of activity

The most effective activities are high-energy exercises including running, jogging, swimming, cycling and cross-country ski-ing. These activities place the necessary demands on your body and train your vital aerobic systems.

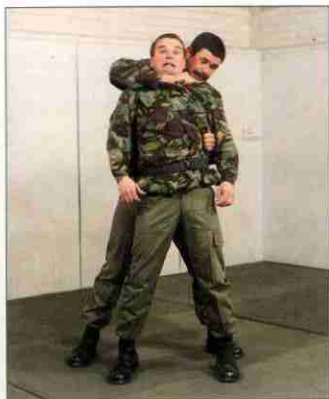
Peak fitness

Aerobic exercise is of enormous benefit, physically and mentally. Whatever your starting level, regular aerobic training can lead you to peak fitness in the shortest possible time.

Aerobic fitness builds up stamina and endurance, vital for soldiers such as Royal Marines who have to be able to carry heavy loads over great distances. By training your heart and lungs to work more effectively you won't tire so quickly during strenuous exercise.



Pull working arm down and shin scrape



1 You are attacked from behind and your attacker again tries to block your windpipe and choke you using his right arm.



2 Grab the attacker's upper sleeve with both your hands and pull down. This releases the pressure on your throat and allows you to breathe.



3 While the attacker is concentrating on trying to choke you, use a shin scrape: scrape down hard using the edge of your boot against his shin, finishing off by stamping on his foot.

Pull up on attacker's sleeve and drop hips for shoulder throw



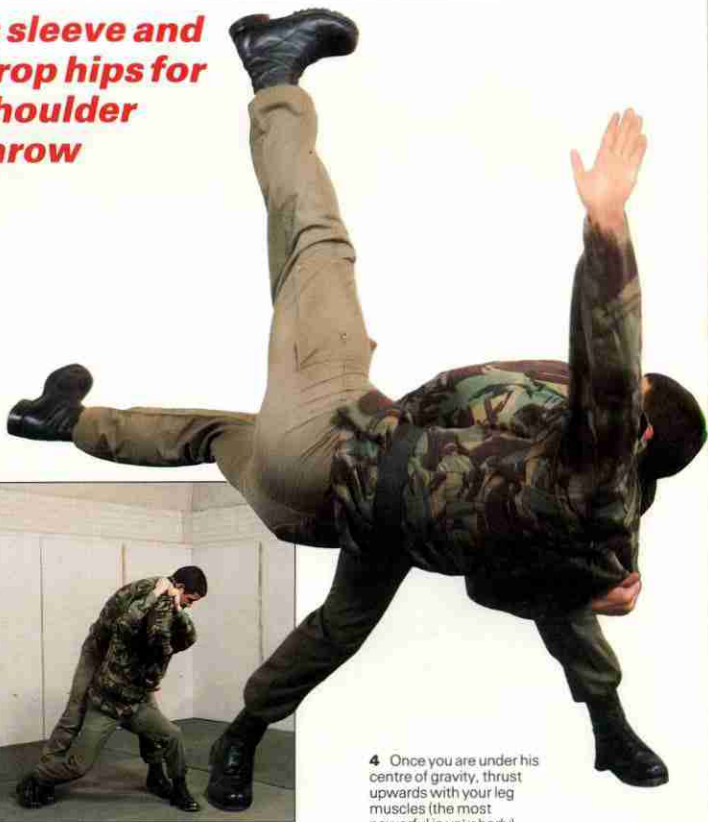
1 The most dramatic defence against a rear strangle attempt is to bodily throw the attacker over your shoulder. Begin by grasping his upper sleeve.



2 Pull outwards and upwards simultaneously while beginning to bend your legs.



3 Bend your legs to get your hips underneath the attacker's centre of gravity.



4 Once you are under his centre of gravity, thrust upwards with your leg muscles (the most powerful in your body) and throw the attacker on to his back.

Unarmed Combat Course No. 13

DEFENCE AGAINST KNIFE ATTACK WITHOUT WEAPONS

The following techniques are for use against a knife-armed attacker when you have no weapon of any kind with which to defend yourself. REMEMBER: YOU MUST NEVER USE A REAL KNIFE WHEN PRACTISING.

DEFENCE AGAINST A SLASH ATTACK (1)



1 The attacker prepares to slash you with his knife. Watch his shoulder carefully: it will begin to move before the knife does.



2 Block the knife attack using your left forearm against his wrist and forearm.



3 Follow up with the heel of your hand against his chin and, if possible, knee him in the testicles.



4 Deliver each blow with full force. This should give you time to disarm the attacker.

DEFENCE AGAINST A SLASH ATTACK (2)



1 The attacker prepares to slash you with his knife, this time attacking from left to right.



Defence against a double arm grab



1 The attacker grabs you with both arms from the front. You bring up your arms and grab him just below the shoulders.



2 Pull back, pushing your right foot deep into his stomach and pivoting back on your left leg.



3 A smart tug backwards and a good push with your right leg will send the attacker flying upside down. This is a good technique to practise, but do not attempt these moves without trained supervision.

The body throw defence



1 The attacker runs at you, preparing to put his full weight behind the blow.



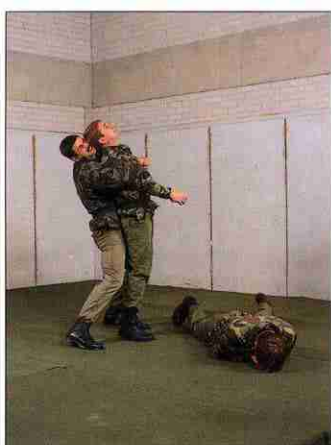
2 At the last moment you duck right down and he can't help overbalancing.



3 Suddenly swinging up, you hurl the attacker off his feet using a body throw. Use your arms as well as your back to propel the attacker up and over.



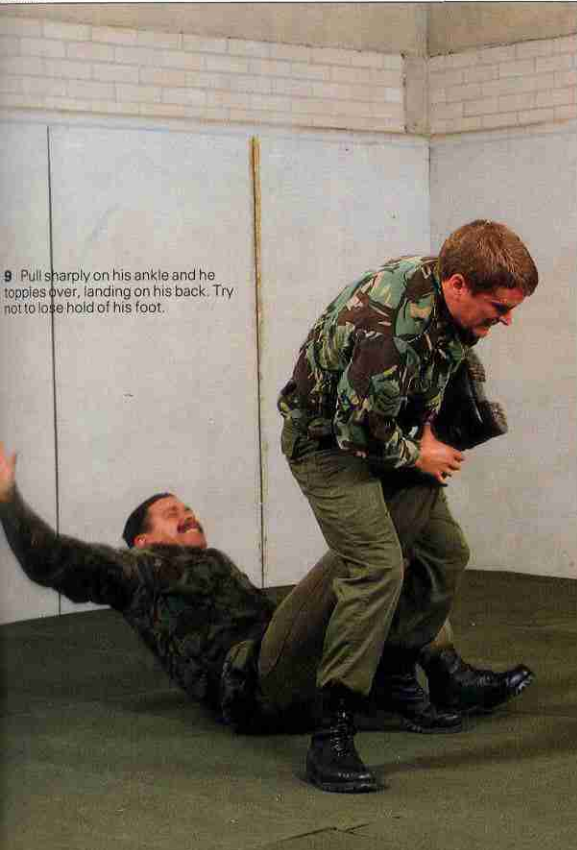
6 Just in time: the second attacker grabs you from behind, pinning your arms to your sides. To break free you bend down, which pulls him forward.



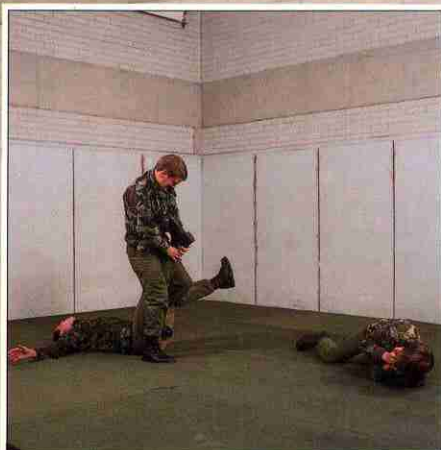
7 Snap your head backwards so that the back of your head butts him in the face.



8 While he is temporarily stunned you bend forward a second time, reaching for one of his ankles.

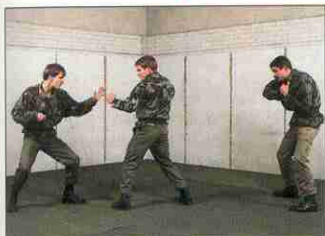


9 Pull sharply on his ankle and he topples over, landing on his back. Try not to lose hold of his foot.



10 Finish off the second attacker with a stamp to the groin.

Knife and pistol attack



1 You are facing a direct-thrust knife attack from the front. Remember that a 'wimpy' response may tempt the attacker into over-confidence.



2 Deflect the knife thrust upwards using your left hand, then bring your right hand to join the left and fix the attacker in an outside wristlock.



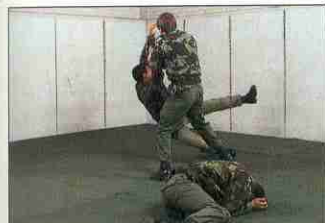
3 Fling the attacker over onto his back, ready to seize the weapon and finish him off.



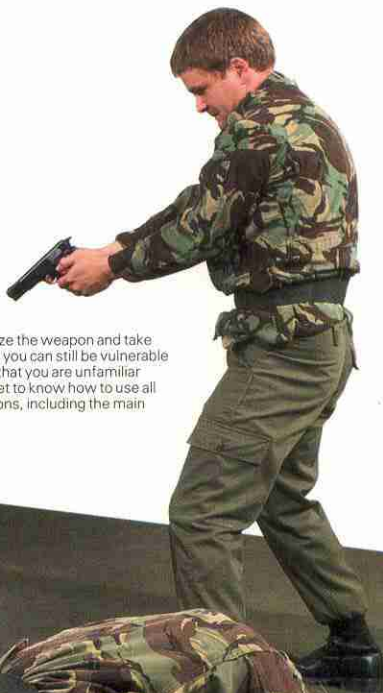
4 But you can't finish him off; a second attacker sticks the muzzle of a pistol into your back and orders you to give up.



5 The attacker has come too close so you attack without hesitation, pivoting to the side and striking the pistol away from you.



6 Apply an outside wristlock and give attacker no. 2 the same treatment, landing him on his back.



7 This time you can seize the weapon and take control. Remember that you can still be vulnerable if you pick up a weapon that you are unfamiliar with. It is important to get to know how to use all common infantry weapons, including the main foreign small arms.



Battle Fitness Programme No. 9

TRAINING YOUR HEART

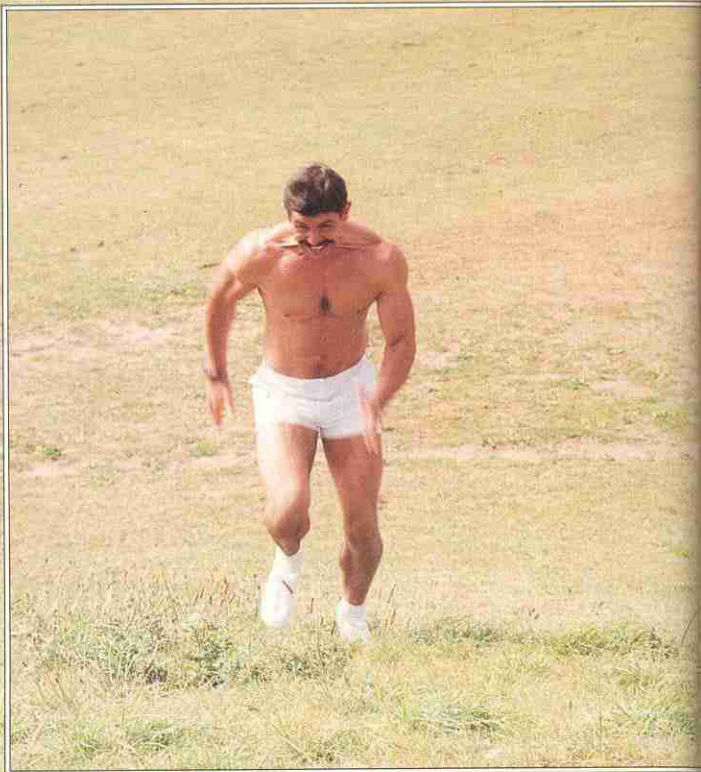
Your heart is the most important trainable muscle in your body. It is easily taken for granted and neglected, which leads to disease and premature ageing. A weak heart can have difficulty supplying sufficient oxygen to your muscles, which means you become tired quickly.

By exercising regularly you can

train your heart to become strong and efficient, and it does not take very much time and effort to keep it at peak fitness. In order to get the best results from your training you need to check that your heart is working at the most effective rate. You should monitor your pulse rate at regular intervals, which will also ensure that you are exercising at a safe level.

Depending on your age, you have a personal 'training zone', often referred to as your 'target heart rate'. It is a level of activity high enough to provide sufficient exercise to strengthen the heart, but not uncomfortably high (and possibly dangerous for someone who is unfit). In most cases, the ideal level is between 70 and 85 per cent of your maximum heart rate.

Running can place a great strain on your heart and lungs. If you force your heart to work near its maximum rate you will simply exhaust yourself and not achieve much benefit from the exercise. At the other extreme, a very gentle jog is unlikely to increase your fitness. You must aim to get your heart working at about three-quarters of its maximum rate, monitoring your pulse while you exercise. By paying attention to your heart rate you will get the best results from your training.



Unarmed Combat Course No. 10

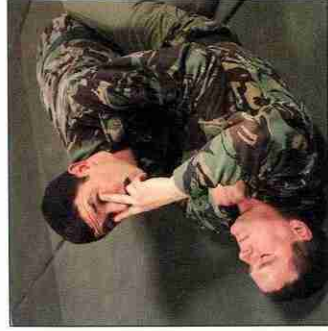
DEFENCE AGAINST CHOKES & STRANDLES ON THE GROUND

Forced to the ground with the attacker on top of you, you have a number of options open but not long to make your mind up. The following defences should allow you to break free, and the last should enable you to control the attacker.

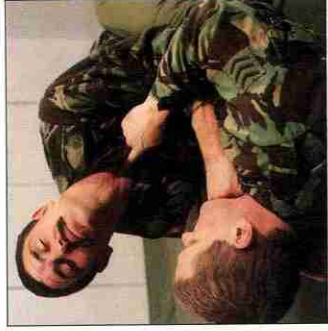
Armpit trap



1 Trapping the attacker's arm in your left armpit, grasp the opposite collar and deliver a chin strike.



2 Alternatively, you can jab at his eyes if they are available as a target.



3 Another possible counter-attack from this position is a finger strike to the neck hollow.

Push through and blow to nose



1 The attacker is trying to strangle you with both hands around your neck.

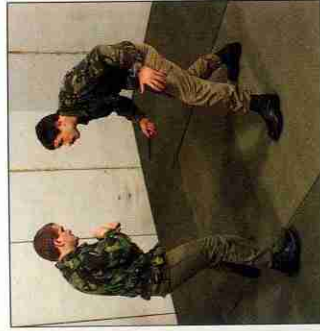


2 Pass your hands between his arms and clasp your hands together in front of your face.



3 Smash them as hard as you can on to his nose.

DEFENCE AGAINST A STAB FROM BELOW

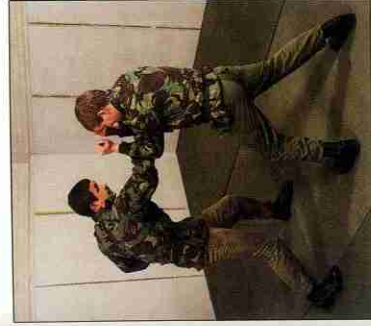


1 The attacker stabs at you from below. You immediately shoot your vital parts to the rear and cross your wrists.

2 With the right arm on top, thrust your arms downwards to block the attacker's wrist.



3 Place your thumbs on the back of his hand and your fingers on the inside to apply a wristlock. If necessary follow up with a kick, then seize the weapon.



2 Block the attacker's arm using your left forearm. Bring your right arm up in the same way.



3 Seize the attacker's wrist and apply an outside wristlock. Remember to keep both your thumbs on the back of his hand.

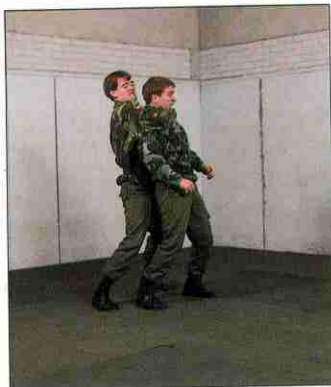


4 Vigorously twist him over should bring the attacker to the floor and force him to drop the knife.

DEFENCE AGAINST DOUBLE STRANGLE HOLDS

In these sequences you are attacked with a mixture of arm chokes and strangles; we show you how to defeat each in turn. The defence against a rear strangle shown in issue 10 is no use if you are confronted by a second attacker, so in this sequence attacker no. 1 has to be finished off rather than left in a bent armlock.

Single arm choke & double hand strangle



1 You are attacked from behind without warning and the attacker applies a single arm choke.



2 Grab his wrist with your left hand and force his arm over your head, as shown in issue 10.



3 With a second attacker on the scene you must finish off attacker no. 1 quickly with a knee to the groin.



4 Attacker no. 2 comes into action and tries a double-handed strangle. You must respond quickly.



5 Drive your hands up between his arms and link your hands together.



6 Smash your hands down against the bridge of his nose.

Unarmed Combat Course No. 23

GOING TO THE RESCUE

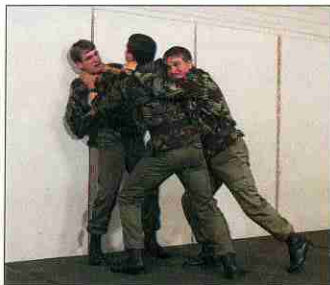
PART 1

Armpit lock and control

When going to someone's rescue, don't forget that the victim of the attacker is unlikely to be instantly of use to you. You are therefore in a one-to-one situation, so make sure you exploit the initial advantage of surprise with efficient technique.



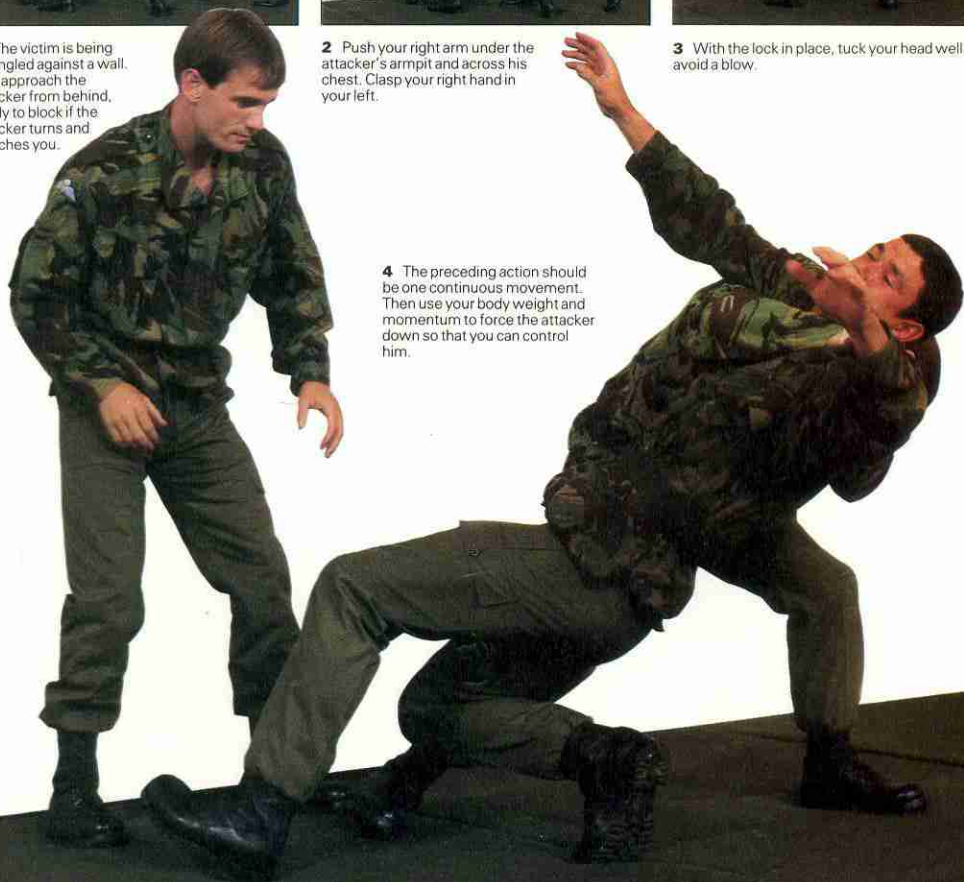
1 The victim is being strangled against a wall. You approach the attacker from behind, ready to block if the attacker turns and punches you.



2 Push your right arm under the attacker's armpit and across his chest. Clasp your right hand in your left.



3 With the lock in place, tuck your head well in to avoid a blow.



4 The preceding action should be one continuous movement. Then use your body weight and momentum to force the attacker down so that you can control him.

How to calculate your target heart rate

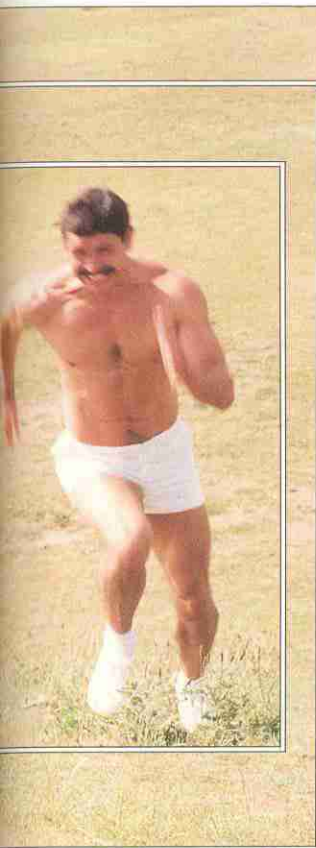
You can calculate and monitor your target heart-rate by using the following formula. This is very simple to do and will provide you with a personal target for your training, which should help your motivation.

The formula

- 1 For the beginner exerciser:
220 minus **your age** multiplied by **60 per cent**
- 2 For the regular exerciser:
220 minus **your age** multiplied by **70 per cent**
- 3 For the advanced exerciser:
220 minus **your age** multiplied by **85 per cent**

You can also refer to the chart provided.

Use this formula and chart to find out what your heart rate should be while you are exercising. As you become fitter your target heart rate will increase.



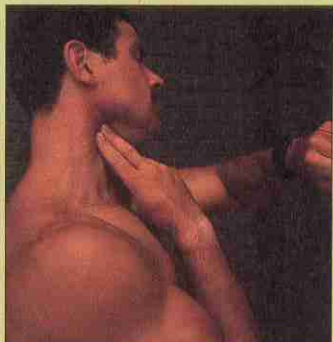
Taking your pulse

To keep your heart within your target heart-rate zone you need to know how to take your own pulse. This can be done by touching either your wrist or the carotid artery on the side of your neck; the latter is generally easier during training. Place your first two fingers on the artery while you exercise and count the number of beats over a 15-second period. Multiply by four to give the number of beats per minute: i.e. 30 beats per 15 seconds means you have a heart rate of 120 BPM.

As explained in Part 8 of the Battle Fitness Programme, the key to improving your heart's performance is aerobic exercise such as jogging or swimming. Remember to spend 5-10 minutes warming up first. About half an hour's aerobic exercise taken three to five times a week will make all the difference. You may find it difficult at first but you will improve if you keep at it, and by monitoring your heart rate you will ensure that you are getting the maximum benefit from your exercise sessions.



Take your pulse by pressing your fingers on the inside of your wrist to the left, just behind your thumb.



When taking your pulse during exercise it is often easier to press the carotid artery in your neck.

Pull shoulder and break the choke

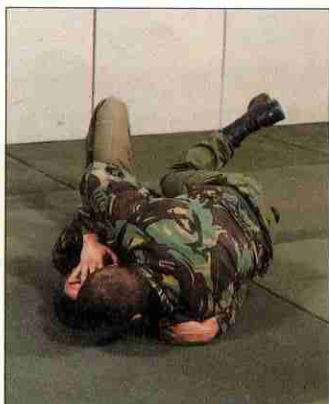


1 The attacker is pinning you to the ground and trying to choke you to death.

2 To stop him choking you, reach up and grab his shoulder with both hands.

3 Pull hard and bring him forward; this will stop the choke, allowing you to breathe and counter-attack.

Roll attacker off and pin him to the ground



1 Trap the attacker's arm under your armpit and grab the opposite collar.

2 Push his face with your free hand. You are aiming to roll on top of him.

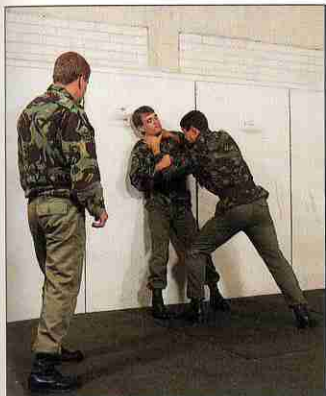
3 If he brings a knee up while you roll on top, kick this away and pivot so you are on your side, on top of him.



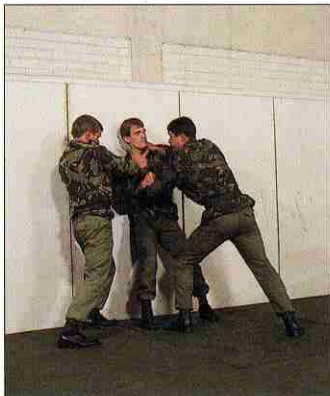
4 Swing your leg round and bring your right arm behind the attacker's head.

5 Reach round and grab your right knee to trap the attacker's head. His right arm is still trapped by your left armpit and he is pinned down.

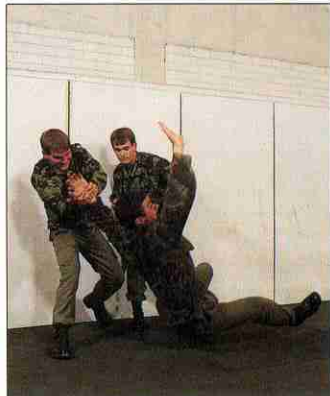
Wristlock, throw down and control



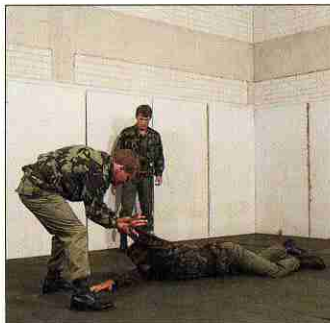
1 Again the attacker has the victim in a stranglehold. Both the attacker's hands are exposed. Approach from behind and move in on the left.



2 Apply the wristlock to the attacker's exposed hand. This will break his grip.



3 Rotate the attacker's arm backwards and the rest of him is bound to follow. Practise this in slow motion only.



4 Once the attacker is on the ground do not lose the initiative. If he is on his back, turn him over by maintaining your grip and walking round his body.



5 Maintain pressure on the wristlock as shown and the attacker can be held in this position. More pressure will force his head and chest onto the ground.



6 If you need to move, apply the 'come along' lock by transferring the lock under the attacker's arm and moving your grip to his thumb. This grip is extremely painful and should not be applied at speed in practice. From this position, tell the attacker to hold his free arm out for handcuffs or for your 'opposite' to control.